

Product Specification

1. Product Overview

- 1.1 Product Name: Integrated Hollow Cycloidal Joint Module
- 1.2 Product Model: RU-JTM-80-025-030-58-D48-H14-CY
- 1.3 Product Description:

The Integrated Joint Module is a highly integrated actuator that incorporates a frameless torque motor, reducer, encoder, and servo driver. It is widely used in high-dynamic scenarios such as robotic arms, humanoid robots, and multi-legged robots.

The RU-JTM-80-025-030-58-D48-H14-CY Hollow Cycloidal Joint Module integrates a cycloidal pin-wheel reducer. Compared with harmonic reducers, it offers core advantages of higher torque density, smaller backlash, stronger impact resistance, longer service life, and superior reliability, making it well suited for applications with stringent performance requirements such as robots, exoskeletons, and specialized equipment.

- Rated Power:250W
- Multiple Control Modes: Position / Speed / Torque Control
- Comprehensive Protection Mechanisms
- Large hollow structure for easy cable routing
- Built-in cycloidal reducer with strong impact resistance and a service life exceeding 20,000 hours

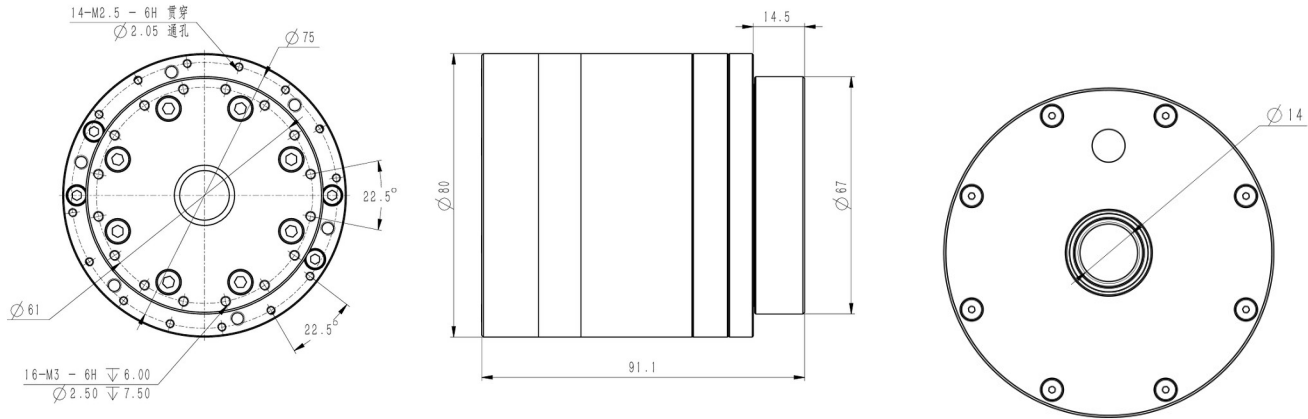
2. Technical Specifications

2.1 Parameter Table

	Item	Parameter
Parameter	Rated Voltage	DC 48v
	Rated Power	250W
	Peak Power	
	Rated Speed	30rpm
	Maximum Speed	
	Rated Torque	58N.m
	Peak Torque	175N.m
	Rated Current	7A
	Peak Current	21A
	Gear Ratio	1:81
	Reducer Backlash	< 3 arcmin
	Encoder	Absolute Dual-Encoder 24bit/24bit
	Communication Protocol	CAN2.0
	Weight	1.9kg
Operating Temperature	-40°C to +85°C	

3. Dimensions and Appearance

3.1 Dimension Drawing



3.2 Appearance Drawing

